

Biological Survey (now the Bureau of Sport Fisheries and Wildlife) were convinced that banding had much to tell us about birds, especially about their migration and life span. So, to continue the banding of birds in America, the Bureau and its counterpart north of the border, the Canadian Wildlife Service, offered to take over the work of the American Bird Banding Association. The offer was soon accepted, and since 1920, banding of migratory birds in the United States and Canada has been under the joint direction of the federal governments of the two countries.

#### What does banding tell us?

Banding birds has shown us many things about the individual bird as well as about the species or group to which it belongs. We know that many birds live as long as 10 years, and some live even longer. For example, a red-winged blackbird that was banded in New York was shot 14 years later in North Carolina, and a black duck banded on Cape Cod was taken by a hunter 17 years later in Newfoundland. Some Canada geese live to be more than 20 years old. The longest a North American bird has been known to live in the wild is 36 years. The holder of this record was a herring gull, banded off the coast of Maine in 1930 while still in the nest and found dead along the shore of northern Lake Michigan in 1966.

If banded birds are captured, released alive, and recaptured, we can reconstruct the migration routes they were following. Or, when large numbers of bobolinks or blackbirds, robins or redstarts, and mourning doves or mallards are banded, we can form a general picture of the pathways used by these birds between nesting and wintering grounds.

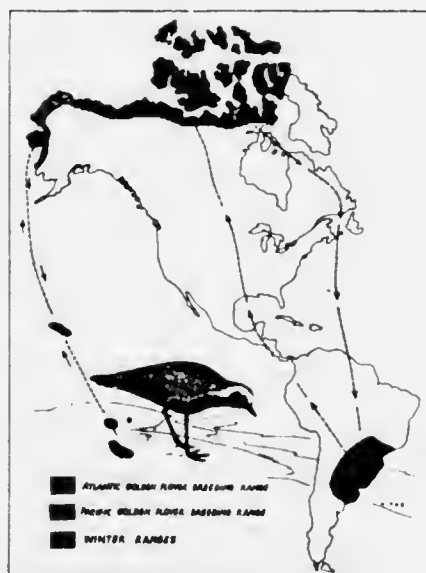
From banding information we have learned that some birds, such as the golden plover, do not return north in the spring over the same route they took south in the fall.

How did we learn that the Arctic tern makes the longest known migration flight of any living species? It was from bands returned from such faraway places as France, Nigeria, Natal and Cape Province, South Africa. It is now known that this bird makes an annual round-trip flight of about 25,000 miles. It nests near the Arctic Circle and winters on the islands near Antarctica.

Many ducklings and goslings are banded each summer on their nesting grounds. Hunters who return the bands they find on these birds during the hunting season are helping to ensure their own hunting in the future. Even though some hunters do not send in their bands, from the bands which are turned in from hunting areas, wildlife biologists can still determine how many waterfowl there will be along the various migration routes during the following autumn. Knowing approximately how many mallards, pintails or mallards could possibly be in an area during the hunting season is a good basis for saying how large a bag limit should be established. The game managers want to be sure enough pairs of these birds escape the guns to provide the next season's breeding stock. Excessive shooting this hunting season means less ducks next year.

#### How birds are banded

Specially designed traps or nets are used to catch the birds for banding. The bird bander must take extreme care in trapping and handling the birds to avoid injuring them. The bander visits his



The Atlantic Golden Plover returns north over a different route than the one it follows south to its wintering grounds.



Banding gave us this picture of the travels of the Arctic Tern.



A close look at a band being placed on the leg of a hawk. The populations of many of our hawks have declined in recent years.

Like most of our migratory birds, the Indigo Bunting crosses international boundaries between nesting and wintering grounds, and is protected by international treaties.



A wildlife biologist removing an Indigo Bunting from a net during a banding operation.

traps or nets hourly so that birds don't suffer from exposure and are not killed by predators. The last trip is made at dusk—birds are never left in a trap overnight. Trapped birds are removed from the traps or nets, identified, examined for age, sex and physical condition, and carefully fitted with aluminum bands and released. Some birds, waterfowl, for example, may be color marked in various ways so they can be recognized individually from a distance. Examples of color markers are plastic neck bands, wing tags, colored leg bands, paints and dyes.

Authorized banders receive bands without charge from the Bird Banding Laboratory, as well as the necessary forms for keeping accurate records. When a band is put on a bird's leg, the bander records the number, the kind of bird, its age and sex and the place and date of banding. Later the bander returns the completed form to the Banding Laboratory, where this information is stored in a computer where it is readily available in case the band is later recovered. Over a million birds are banded every year. Of these, we hear back from over 100,000.

Seventeen different sizes of aluminum bands are used in banding birds. In addition, special bands made of such metals as monel, incoloy, and titanium are sometimes used in special studies or on birds that tend to wear out their bands very rapidly. Very small bands are needed for tiny birds such as warblers, vireos, kinglets and hummingbirds. Large bands are used on swans, geese or eagles. Besides the serial number, each band bears the address: "AVISE BIRD BAND

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